



MBTA Old Colony Commuter Rail Tie Replacement Project

Overview
March 2011





Project Description

- Emergency maintenance project to replace failing concrete ties with new timber ties





Project History

- Failure of Existing Concrete Ties
 - Results in operational impacts (speed restrictions and schedule adjustments)
 - Failure rate outpaces tie maintenance program
 - Imminent failure of all concrete ties expected





Concrete Tie Failure



- Manufacturer design error
- Inadequate steel reinforcing
- Lateral failure
- All ties expected to fail
- Amtrak experienced same failures on N.E.C.



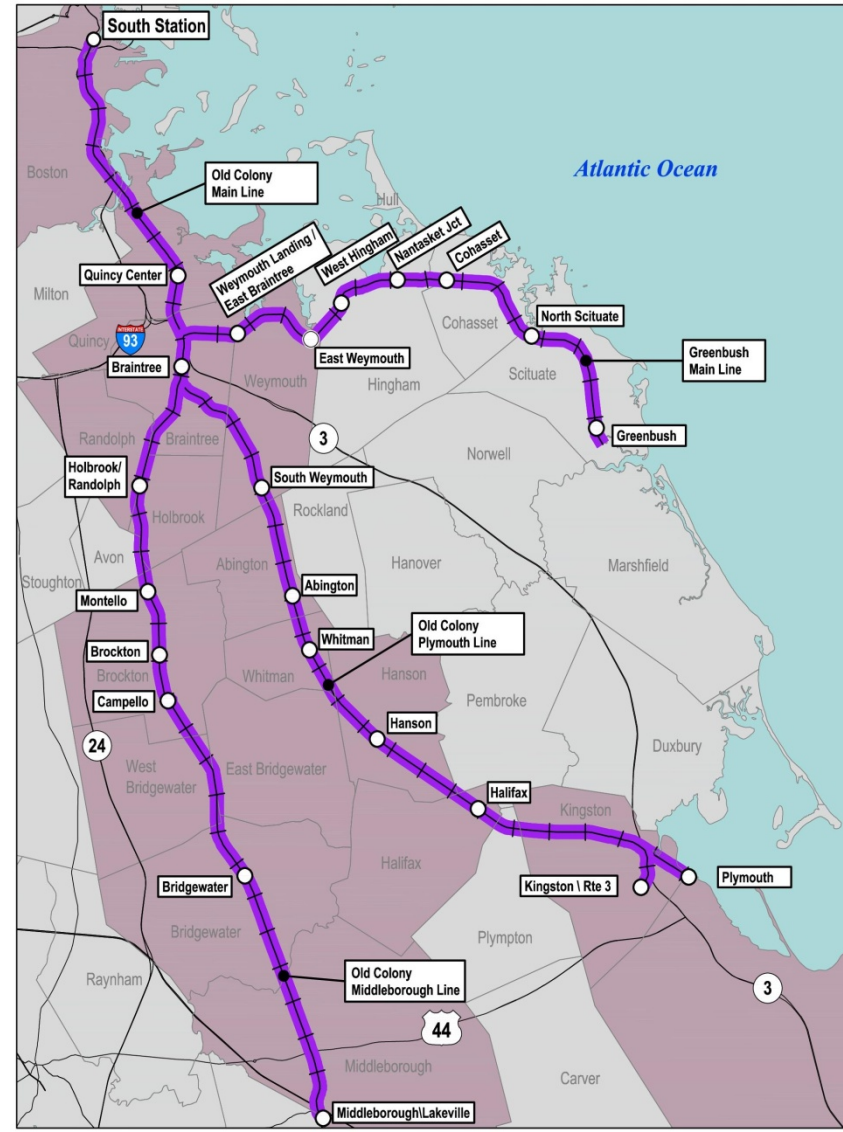
Timeline

- Fall 1997: OCCR lines open for revenue service
- Spring 2007: Tie failures observed
- Winter 2007/8: Failure rate increases
- Spring 2008: Meet with manufacturer Rocla; Amtrak experiences same issue
- Fall 2008: Failure rate appears stable
- Winter 2008/9: Rapid increase in failures resulting in operations impacts
- Spring 2009: Independent Test Lab determines insufficient steel reinforcing is the cause
- Fall 2009: Speed restrictions posted
- Summer/Fall 2010: Solicitation of Contractor bids for OCCR tie replacement
- Winter 2010: Construction on the Plymouth Line and Middleborough Line begins. Work is suspended for the winter in mid-December.
- Spring 2011: Construction to resume in March 2011.



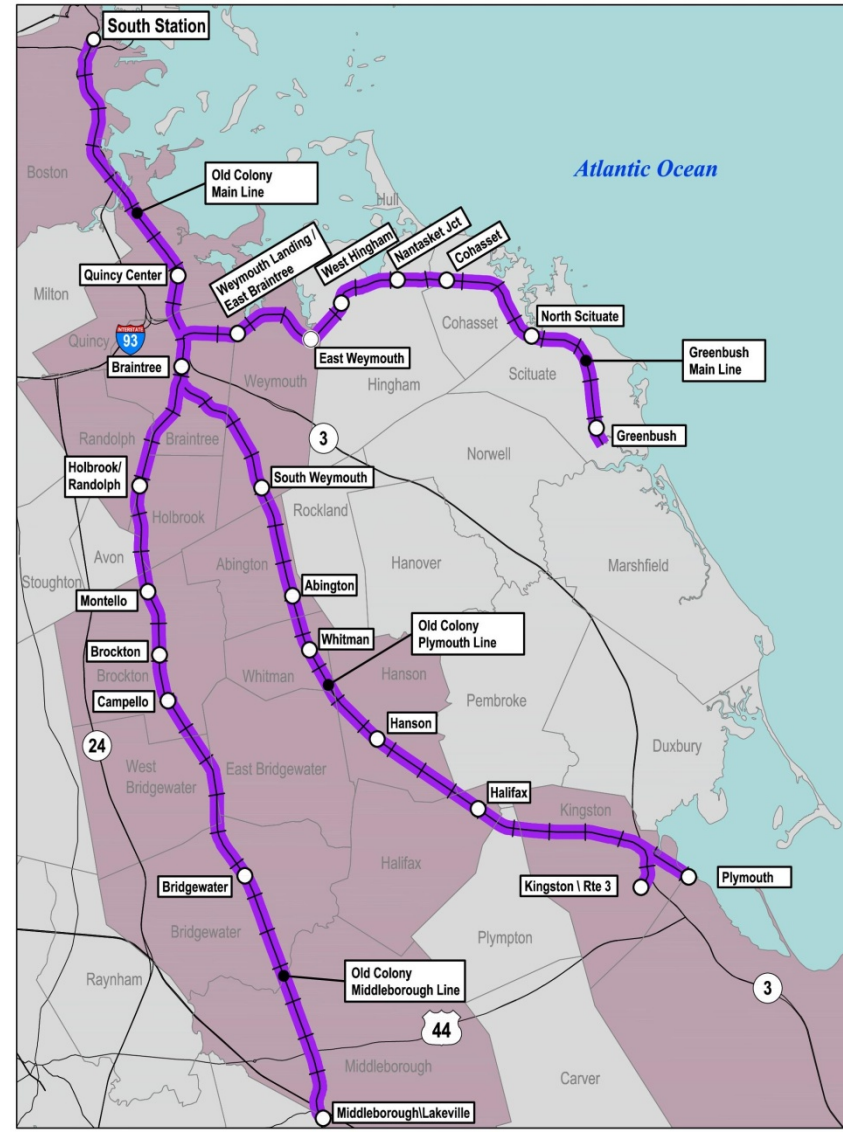
Project Limits

- Old Colony Lines
 - Main Line (4.1 miles)
 - Middleborough Line (25.1 miles)
 - Plymouth Line (26.0 miles)
 - Kingston Branch (1.7 miles)
 - 56.9 Miles of Concrete Tie Replacement



Impacts to 22 Communities

- Abington
- Avon
- Boston
- Braintree
- Bridgewater
- Brockton
- Cohasset
(Greenbush)
- East Bridgewater
- Halifax
- Hanson
- Hingham
(Greenbush)
- Holbrook
- Kingston
- Lakeville
- Middleborough
- Plymouth
- Quincy
- Randolph
- Scituate
(Greenbush)
- West Bridgewater
- Weymouth
- Whitman





OCCR Tie Replacement Project

■ Total Project

- 150,000 existing concrete ties to be removed
- 187,000 new timber ties to be installed
- 81 grade crossings (including double track crossings)

■ Construction Completion to Date

- 7,217 wooden ties installed on the Plymouth Line
- 4,313 wooden ties installed on the Middleborough Line.
- 6 grade crossings replaced on the Plymouth Line





Schedule

- Construction resumes March 2011 through May 2012
 - Middleborough Line – 6 Months
 - Plymouth Line – 7 Months
 - Main Line
 - Double Track – 16 Weeks
 - Single Track – 8 Weekends



Service Shutdowns

- Weekdays: 9 AM to 4 PM (non-peak service)
 - Middleborough Line – 8 non-peak trains affected
 - Plymouth Line – 7 non-peak trains affected
- Weekends: Saturday & Sunday shutdown
 - Weekend shutdowns for Main Line construction; shutdown Middleborough, Plymouth & Greenbush Lines
- Weekend construction for all grade crossings
 - Friday midnight through Monday AM rush hour trains



Construction Methodology

- Traditional tie gang to change out ties individually
 - 3 tie gangs (20 workers per gang)
 - 3,000 ties per week (about one mile per gang)
 - Two grade crossings per weekend
- Surface and alignment of tracks
- Inspections prior to revenue service



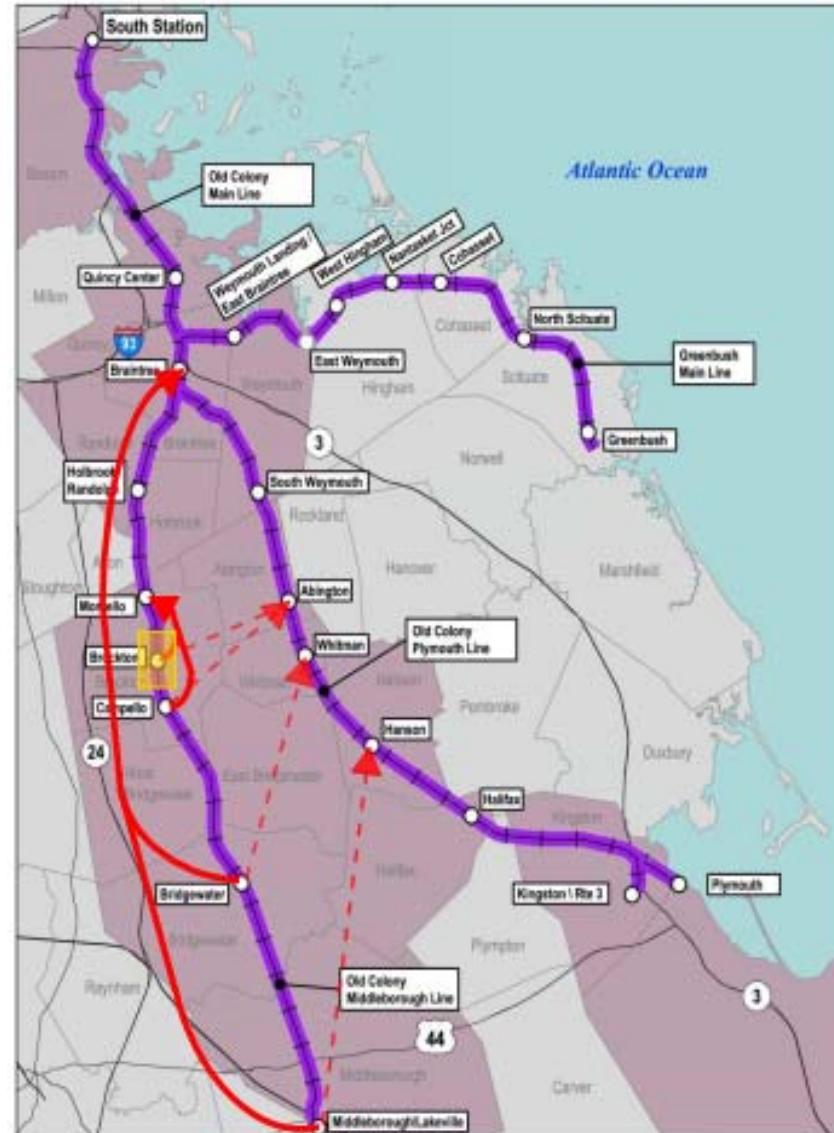


Substitute Transit Service - Bus

- Weekdays: 9 AM to 4 PM
 - 10-20 boardings per station per train
 - Bus service from affected stations to nearest open station or to Braintree Red Line Station
 - Pickups/drop-offs within 15 minutes of scheduled train
 - Buses will be ADA accessible
- Weekends: None provided for regularly scheduled trains
 - Contract currently allows 20 weekend days for special municipal events (per request only)

Substitute Transportation Example

- Customer Options
 - Shuttle bus from affected station to next open station
 - Bus directly to Braintree when 15 minute constraint is infeasible on station-to-station busing
 - Drive to nearest open rail station, i.e. Montello Station
 - Drive to Plymouth Line Station, i.e. Abington, Whitman, or Hanson Stations





Coordination

- MBCR
 - Involved in pre-Bid planning
 - Present at bi-weekly construction meetings
- Municipalities
 - Legislative briefings sent prior to construction
 - Conservation Commissions – Notification Letter
 - Traffic Management Plans w/ Municipal Administrators
 - Follow up meetings in advance of construction



Public Outreach


- Hotline Number (617-222-5281)
- MBTA website presence
 - MBTA Alerts/Advisories
 - Link to project website directly from MBTA.com
 - Interactive project website ([Link to OCCR website](#))
- Rail Mail at MBCR.net
- Legislative Progress Reports
- Customer Flyers and Station posters (updated weekly on project website)
- Newspaper Notices



Newspaper Advertisements

Placed ¼ Page Advertisements in:

- The Patriot Ledger (3/9/11)
- The Enterprise (3/9/11)
- Middleborough Gazette (3/10/11)
- Standard Times (3/10/11)
- The Middleborough Gazette Extra (3/11/11)



Old Colony Commuter Rail TIE REPLACEMENT PROJECT

Project Update

Work To Resume Monday, March 14

As you are aware, the MBTA is upgrading approximately 57 miles of rail on the Old Colony Commuter Rail lines through a tie replacement project; the lines include the Main Line, the Middleborough Line, the Plymouth / Kingston Line and the Greenbush Branch. The existing concrete ties are beginning to fail and can cause operational impacts including speed restrictions and schedule adjustments. Chosen for their proven performance record, timber cross ties will replace all existing concrete ties.

GOOD NEWS

Since the project's inception last fall significant progress has been made:

- 7,217 ties have been replaced on the Plymouth Branch
- 4,313 ties have been replaced on the Middleborough Branch.

WHAT NEXT

On Monday, March 14 work resumes with an emphasis on expediting the work schedule to include weekends. Work shifts include:


- Weekdays, Monday through Friday 9:00 a.m. to 4:00 p.m.
Alternative bus service will be provided during off - peak hours.
- Weekends, Saturday and Sunday 7:00 a.m. - 11:00 p.m.
No weekend Commuter Rail service available. Red line service available.

USEFUL INFORMATIONAL TOOLS


To ensure customers and residents are provided the most up to date information throughout the various phases of the Old Colony Tie Replacement Project; the following informational resources are available:

- For bus replacement service schedules and project milestones go to www.mbta.com and click on the Old Colony Tie Replacement Project button located on the front page.
- For project updates sign up for Rail Mail at www.mbcrr.net
- For questions/concerns pertaining to the project call the Old Colony 24 hour hotline at 617-222-5281.

We thank you for your patience and cooperation as we work to complete this vital project in a timely manner.



Massachusetts Bay
Transportation Authority



massDOT
Massachusetts Department of Transportation